

Who has successfully reduced mercury?

Bethlehem Steel, Ispat Inland, and US Steel developed mercury reduction plans, focusing primarily on mercury-containing devices under a voluntary agreement with EPA, the Indiana Department of Environmental Management, and the Lake Michigan Forum. These plans included taking an inventory of mercury-containing equipment, materials, storage, and waste streams. The mills instituted plans to reduce the amount of mercury by 90 percent by 2008 by substituting equipment, altering purchasing practices, and educating employees. By 2003, the three facilities had collectively removed 3,700 pounds of mercury from their facilities. The greatest reduction came from operating equipment and devices.

International Steel Group's (formerly Bethlehem Steel) Burns Harbor Division, Ispat Inland, and US Steel are all located in Indiana on Lake Michigan and provide steel for use by the automotive, office furniture, container, and appliance markets.

We Energies voluntarily reduced its mercury-containing equipment (including thermometers, barometers, manometers, and switches) by over 10,000 pounds. We Energies removed equipment during routine maintenance and implemented targeted reduction plans. They also changed purchasing policies to buy mercury-free caustic soda.

We Energies provides electric and natural gas services to Wisconsin and the Upper Peninsula of Michigan and water and steam services to northern suburban and downtown Milwaukee.

Consumers Energy Company established a Mercury Pollution Prevention Initiative in 1996 and by 2002 reduced elemental mercury by 90 percent and mercury-containing equipment by more than 33 percent.

Consumers Energy Company provides electric and natural gas services to the Lower Peninsula of Michigan.

The National Partnership for Environmental Priorities (NPEP) Mercury Challenge

Be proactive...

join the PARTNERSHIP.

Be committed...

take the PLEDGE.

Be an environmental steward...

accept the CHALLENGE!

For more information about mercury, NPEP, or how to create a mercury reduction program, please visit:

<http://www.epa.gov/epaoswer/hazwaste/minimize/mercchall.htm>



Mercury: Serious Problem, Practical Solutions



The National Partnership for Environmental Priorities Mercury Challenge

U.S. Environmental Protection Agency

*Be part of the solution:
prevent mercury pollution!*



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What is mercury?

- ☉ Mercury is a naturally occurring metal that exists as
 - elemental (or metallic) mercury,
 - inorganic mercury compounds, or
 - organic mercury compounds.
- ☉ Elemental mercury is a shiny, silver-white, odorless liquid used in thermometers, electrical switches, and batteries. At room temperature, elemental mercury can evaporate to become a colorless, odorless gas.
- ☉ Mercury combines with carbon to form organic mercury compounds. In addition, microscopic organisms in water and soil convert inorganic mercury into methylmercury, the most common organic mercury compound in the environment. Methylmercury accumulates up the food chain.



Did you know?

- ☉ Two thousand metric tons of mercury are estimated to be in use in equipment in U.S. industries, including measuring and control instruments (e.g., switches, relays, thermostats) and electrical equipment.
- ☉ When mercury-containing equipment is replaced, mercury can be released if the disposed equipment is
 - broken, allowing elemental mercury to be exposed to air;
 - incinerated, releasing mercury into the air; or
 - deposited in a landfill, allowing mercury to migrate to soil, water, and air.
- ☉ Mercury is one of EPA's targeted priority chemicals.
- ☉ Several state governments have banned mercury-containing equipment – is your state one of them?

Why is mercury a problem?

- ☉ Mercury does not go away. It does not degrade, and it is not destroyed by combustion. Instead, liquid mercury can volatilize to become a vapor that can travel long distances.
- ☉ Mercury cycles among soil, air, and surface water. Its toxicity can cause damage to the liver, kidneys, nervous system, or reproductive system in humans.
- ☉ Mercury accumulates in the food chain—especially in fish—concentrating as it moves from the bottom to the top.

Here's what industry and businesses can do to help:

- ➡ **Join the National Partnership for Environmental Priorities (NPEP)** (<http://www.epa.gov/epaoswer/hazwaste/minimize/mercchall.htm>).
- ➡ **Take the Mercury Reduction Pledge.**

Mercury Pledge

Our company will...

- ✓ Identify mercury in our facilities and products
- ✓ Replace mercury-containing equipment with mercury-free alternatives
- ✓ Dispose of mercury-containing equipment safely
- ✓ Establish mercury-free purchasing policies
- ✓ Educate staff, suppliers, and clients about mercury and mercury-free alternatives

As an NPEP Partner, you will receive public recognition for your commitment to reduce mercury.

What EPA can offer you:

- identification of possible mercury sources,
- suggestions for mercury-free alternatives and mercury product disposal options, and
- examples of mercury reduction programs.

Visit <http://www.epa.gov/epaoswer/hazwaste/minimize/mercchall.htm>.

How do you benefit from reducing mercury in your facility?

- Reduced potential worker exposure
- Reduced mercury disposal and collection costs
- Minimized risk of mercury spills and their cleanup costs